

Appl. S/N 10/533,960
Response dated March 29, 2006
Reply to Office Action dated December 29, 2005

Page 6 of 9

Remarks

Claims 2 - 10, and 12 - 25 remain pending in this application. Applicant has cancelled claims 1 and 11 without prejudice. The Abstract has been presented separately on page 5 of this paper.

35 U.S.C. 102(e) rejections

The Examiner rejected claims 1-6, 9, 10, 12-16, 18 and 21-25 under 35 U.S.C. 102(e) as being anticipated by Hunzinger et al. (Hunzinger) in U.S. Patent No. 6,501,947. Claim 1 has been cancelled, and its rejection is now moot. Claims 2 - 6, 9 and 10 now depend, directly or indirectly, from claim 12, and Applicant submits that they are patentable in view of Hunzinger for the reasons set out below. Claim 3 has been amended to reflect the antecedents in claim 12.

Applicant respectfully submits that Hunzinger fails to teach all the elements recited in independent claims 12 and 21. With respect to independent claim 12, the Examiner states that the claim recites a step of "initializing a back off timer based on a previous number of connection requests." The Applicant respectfully disagrees for at least the following reason. Claim 12 reads:

A method of automatically re-establishing a data connection on a wireless data network and comprises a steps of determining a data connection status upon the expiry of a service check timer; automatically transmitting a connection request if the data connection is determined to be lost; and re-establishing the data connection if the transmitted connection request is accepted by the wireless data network.

By contrast, Hunzinger teaches a method for distributing the reconnection attempts of multiple system users in a CDMA telephone system over a broad time window. The method of Hunzinger uses a reconnection timer and a timer setting circuit. The timer setting circuit sets the reconnection timer to a value after a failed connection attempt between a mobile station and the mobile communication system and the timer setting circuit determines the value of the reconnection timer is based on a set of data regarding connection requests (see abstract and col. 2, lines 22-29). As will be shown below, a service check timer as recited in claim 12 is neither taught nor suggested by Hunzinger.

Claim 12 refers to a service check timer, not to a back off timer or to an initialization of a back off timer as stated by the Examiner. The differences between a service check timer and a back off timer are discussed, for example, with reference to Fig. 2 of the application, which

Appln. S/N 10/533,960
Response dated March 29, 2006
Reply to Office Action dated December 29, 2005

Page 7 of 9

shows a block diagram of a mobile device including a service check timer (154) and a back off timer (152). The functions of the service check timer (154) and of the back off timer (152) are, respectively, as follows: a service check timer ensures that a connection of a device is checked at minimum fixed intervals while a back off timer ensures that a connection request is re-issued if the connection request has been previously rejected. These respective functions are clearly described at least at paragraph 23 of the corresponding Patent Application Publication No. 2006/0063544:

[0023] Connection Manager 156 determines the status of the connection, as described in relation to FIG. 3, when a variety of events occur. These events include receipt of a Release Order, receipt of a PPP Termination Request, and the expiry of Service Check Timer (SCT) 154, one skilled in the art will appreciate that other failure events can also cause connection manager 156 to determine the status of the connection. SCT 154 is used to ensure that connection manager 156 checks the connection at minimum fixed intervals. Connection manager 156 can also reset SCT 154 when either SCT 154 expires or upon receipt of data traffic. As described in below, upon determining loss of connection, connection manager 156 issues a connection request message to the network via antenna 148 and BTS 102. If the connection request message is rejected connection manager 156 sets back off timer (BOT) 152, to a value preferably determined by a random seed. Upon expiry of BOT 152, connection manager 156 re-issues a connection request in the form of an Origination Message.

Applicant submits that nowhere in Hunzinger is such a service check timer taught or suggested. Thus, for at least the above reasons, Applicant requests that the rejection of claim 12, and its dependent claims 2 - 6, 9, 10, 13 - 16, and 18, under 35 U.S.C. 102(e) be withdrawn.

With respect to independent claim 21, which is to a mobile device for establishing and maintaining a data connection to a wireless data network, the Examiner states that the claim teaches a method of establishing a data connection to a wireless network, the method having a step of "initializing a back off timer based on a previous number of connection requests." The Applicant respectfully disagrees for at least the following reason. Claim 21 reads, *inter alia*,

A mobile device for establishing and maintaining a data connection to a wireless data network, the mobile device comprising: a back off timer for timing a back off period; a service check timer for timing a service check period; and a connection manager for determining a data connection to the wireless network is established at expiry of the service check timer....

Appln. S/N 10/533,960
Response dated March 29, 2006
Reply to Office Action dated December 29, 2005

Page 8 of 9

As stated above, Applicant submits that nowhere in Hunzinger is such a service check timer taught or suggested. Thus, for at least the above reasons, Applicant requests that the rejection of claim 21 and of its dependent claims 22-25, under 35 U.S.C. 102(e) be withdrawn.

35 U.S.C. 103(a) rejections

For the Examiner to establish a *prima facie* case of obviousness, three criteria must be considered: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all of the claim limitations. (MPEP §§ 706.02(j), 2142 (8th ed.))

The Examiner rejected claims 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Hunzinger in view of U.S. Patent No. 4,827,507 to Marry et al. Claims 7 and 8 have been made to depend from 14, which, in turn, depends from claim 12. For the reasons stated above, Applicant submits that the service check timer described and recited in claim 12 is neither taught nor suggested by Hunzinger. There is also no teaching or suggestion of such a service check timer in Marry. Accordingly, Applicant submits that the cited references do not teach all of the claim limitations, and that no *prima facie* case of obviousness has been established, and requests withdrawal of the rejection under 35 U.S.C. 103(a).

The Examiner rejected claims 11 and 20 under 35 U.S.C. 103(a) as being unpatentable over Hunzinger in view of U.S. Patent Application Publication No. 2002/0082032A1 to Hunzinger (Hunzinger-2). Claim 11 has been cancelled without prejudice, and its rejection is now moot.

Claim 20 depends on independent claim 12. Applicant submits that neither Hunzinger nor Hunzinger-2, alone in combination, teach or suggest a service check timer as recited in claim 20. In particular, as stated above with respect to the rejection under 35 U.S.C. 102(e), Hunzinger fails to teach or suggest "a method of automatically re-establishing a data connection on a wireless data network comprising steps of determining a data connection status upon the expiry of a service check timer;..." as recited in claim 12. Applicant submits that Hunzinger-2 also fails to teach such a service check timer or a method for automatically re-establishing a data connection using such a service check timer. Thus, Applicant submits that Hunzinger and Hunzinger-2 do not teach or suggest all the limitations of claim 20. Accordingly,

Appln. S/N 10/533,960
Response dated March 29, 2006
Reply to Office Action dated December 29, 2005

Page 9 of 9

Applicant submits that the rejection of claim 20 under 35 U.S.C. 103(a) is traversed and requests that the rejection be withdrawn.

The Examiner rejected claims 17 and 19 under 35 U.S.C. 103(a) as being unpatentable over Hunzinger.

Claims 17 and 19 depend on independent claim 12 and on intervening claims. Applicant submits that Hunzinger fails to teach or suggest "a method of automatically re-establishing a data connection on a wireless data network comprising steps of determining a data connection status upon the expiry of a service check timer..." as recited in claim 12. Thus, for at least this reason, Applicant submits that claims 17 and 19 cannot be obvious in view of Hunzinger and requests that the rejection of claims 17 and 19 under 35 U.S.C. 103(a) be withdrawn.

Applicant submits that the application is now in condition for allowance, and favorable action to that end is respectfully requested.

We believe no fee is required. However, if a fee is due, the Commissioner is hereby authorized to charge any additional fees, and credit any overpayments to Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP.

Respectfully submitted,
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